

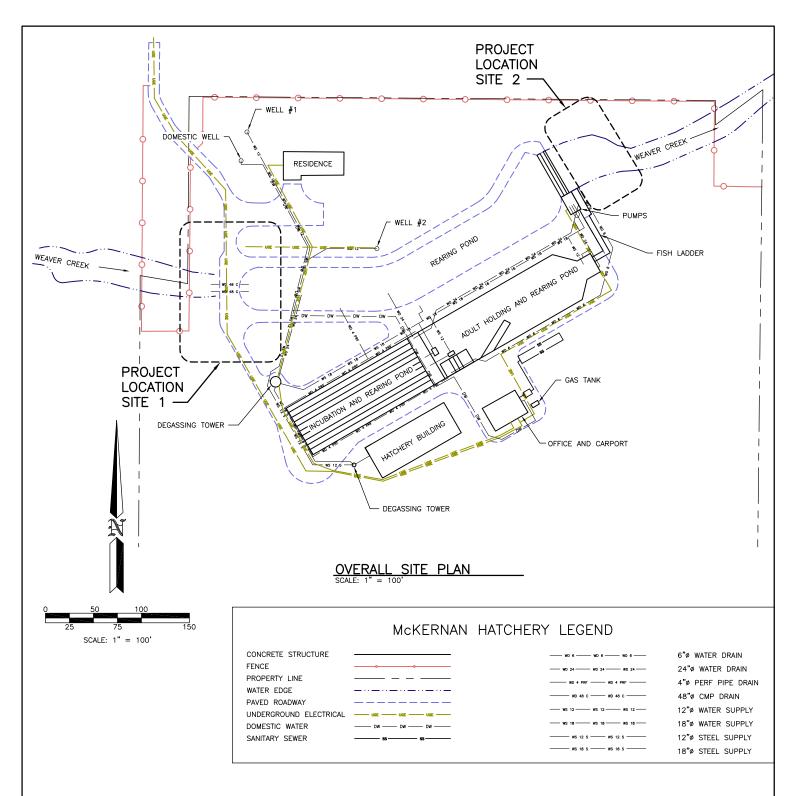
ADJACENT PROPERTY OWNER: 1.

DATUM: NAVD 88 SHEET 1 OF 12

LAT/LONG: 47.3072/-123.204

DATE: 2/27/2015

NEAR/AT: SHELTON
COUNTY: MASON
STATE: WA



QUANTITIES				
MATERIAL	CUT ABOVE OHW	FILL ABOVE OHW	CUT BELOW OHW	FILL BELOW OHW
TYPICAL ROAD FILL	-63 CY	-	-120 CY	-
ECOLOGY BLOCKS	-	-	-	35 CY
CONCRETE	-	5 CY	-	3 CY
STREAMBED MIX	-	-	-	10 CY
GRAVEL APPROACH	-	20 CY	-	-
QUARRY SPALLS	-	5 CY	-	_
ASPHALT	-	5 CY	-	-
ROOTWADS	-	-	-	20 CY
NET TOTALS	-28 CY		-52 CY	

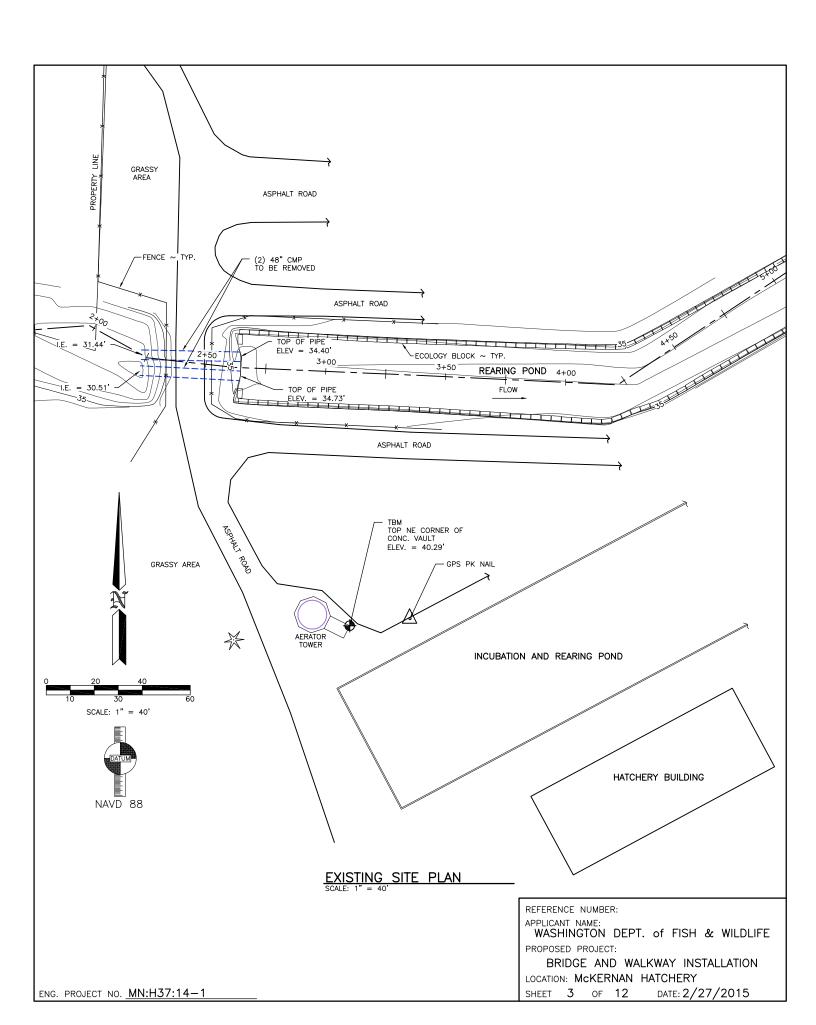
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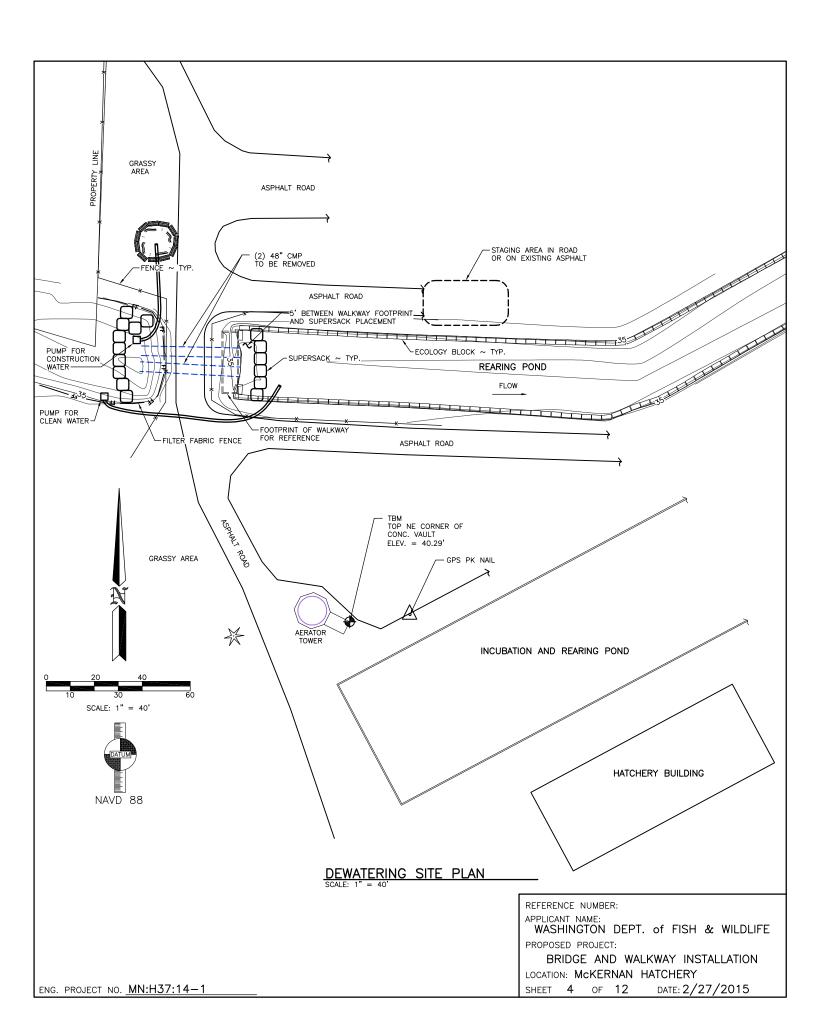
APPLICANT NAME:

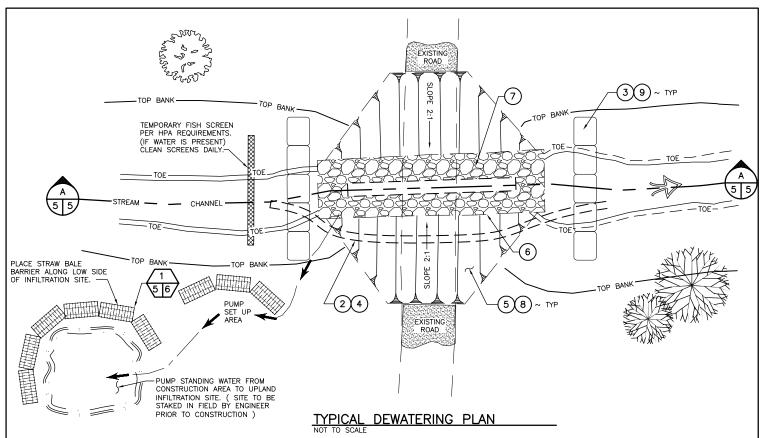
WASHINGTON DEPT. of FISH & WILDLIFE PROPOSED PROJECT:

BRIDGE AND WALKWAY INSTALLATION LOCATION: McKERNAN HATCHERY

SHEET 2 OF 12 DATE: 2/27/2015







## **DEWATERING NOTES:**

- 1. ALL WORK SHALL BE IN ACCORDANCE WITH HPA.
- DURING CONSTRUCTION (IF WATER IS PRESENT) STREAM LOW SHALL BE DIVERTED THROUGH BYPASS OR EXISTING PIPE. IF HIGH FLOW, (2) DIVERSION PIPES MAY BE NEEDED.
- 3. PLACE SUPER SACKS FILLED WITH PEA GRAVEL TO SEAL BYPASS INLET AND OUTLET.
- 4. DIVERSION SHALL BE APPROVED BY INSPECTOR PRIOR TO EXCAVATION.
- 5. FISH REMOVAL SHALL BE COMPLETED BY PERMITTING STAFF.
- 6. EXCAVATE EXISTING FILL.

TEMPORARY FISH SCREEN PER HPA REQUIREMENTS. (IF WATER IS PRESENT) CLEAN SCREENS DAILY.

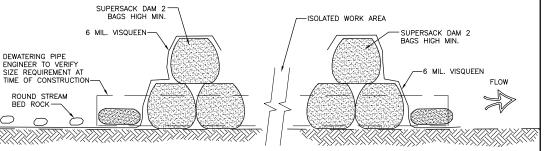
> -PEA GRAVEL SANDBAG OR NATIVE STREAM BED GRAVEL PLACED BY HAND

> > TOE IN FRONT OF PLASTIC INTO STREAM BED 1:1 MIN., 1'-0" DEEP—

- 7. REMOVE EXISTING CULVERT AND DISPOSE OF OFF SITE.
- 8. PLACE NEW BED MATERIAL MIX AND REMOVE BYPASS PIPE.
- 9. COVER ALL EXPOSED SOIL WITH STRAW MULCH AND GRASS SEED.
- 10. REMOVE DIVERSION BAGS AND FISH SCREENS BY HAND.

# SOIL STABILIZATION NOTES:

- ALL EXPOSED SURFACES SHALL BE REVEGETATED WITHIN 30 DAYS OF AREA COMPLETION. COMPLETION INCLUDES ALL SLOPES TO FINISH CONTOUR AND ALL CLEARED AREAS, NOT GRAVELED, SMOOTH AND CLEAR OF DEBRIS TO THE SATISFACTION OF THE ENGINEER.
- REVEGETATION SHALL MEAN BROADCAST SEEDING OR HYDRO-SEEDING..
- MULCHING AND MATTING SHALL BE UTILIZED DURING PERIODS OF CONSTRUCTION DELAYS OR WINTER DOWNTIME FOR TEMPORARILY PROTECTING EXPOSED SOILS.





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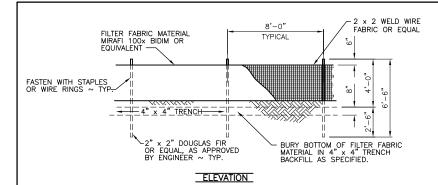
APPLICANT NAME:

WASHINGTON DEPT. of FISH & WILDLIFE PROPOSED PROJECT:

BRIDGE AND WALKWAY INSTALLATION LOCATION: MCKERNAN HATCHERY

HEET 5 OF 12 DATE: 2/27/2015

ENG. PROJECT NO. MN:H37:14-1

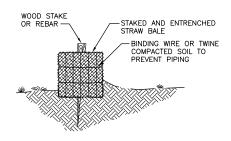


# FILTER FABRIC OR EQUAL, AS APPROVED BY ENGINEER ~ TYP. NEW GRADED OR DISTURBED SIDE SLOPE PILE 2" TO 4" QUARRY SPALLS IN FLOW CHANNEL 1'-O" MIN. DEPTH OR LOCAL MATERIAL AS APPROVED SECTION

# TYPICAL FILTER FABRIC FENCE

### FILTER FABRIC FENCE NOTES:

- FILTER FABRIC SHALL BE A CONTINUOUS ROLL CUT TO LENGTH OF BARRIER AS NEEDED. IF
  JOINTS ARE NECESSARY FABRIC SHALL BE SPLICED TOGETHER ONLY AT SUPPORT POSTS WITH
  A MINIMUM OF SIX (6) INCH OVERLAP. BOTH ENDS SHALL BE SECURED AS REQUIRED.
- FILTER FABRIC SHALL BE INSTALLED TO FOLLOW CONTOURS. FENCE POSTS SHALL BE SPACED
  A MAXIMUM OF EIGHT (8) FEET APART UNLESS OTHERWISE SHOWN HEREIN. ALL POSTS SHALL
  BE DRIVEN INTO THE GROUND A MINIMUM OF 30 INCHES.
- A TRENCH SHALL BE EXCAVATED, ROUGHLY FOUR (4) INCHES WIDE BY FOUR (4) INCHES
  DEEP UPSLOPE AND ADJACENT TO THE POST TO ALLOW THE FILTER FABRIC TO BE BURIED.
- 4. WHEN STANDARD STRENGTH FILTER FABRIC IS UTILIZED, A WIRE SINGLE SPACE MESH SUPPORT FENCE SHALL BE FASTENED TO THE UPSLOPE (OR UPSTREAM) SIDE OF THE POSTS USING ONE (1) INCH MINIMUM LENGTH WIRE STAPLES, TIE WIRE OR APPROVED HOG RINGS. ALL WIRE SUPPORT SHALL EXTEND INTO THE TRENCH A MINIMUM OF FOUR (4) INCHES AND SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE ORIGINAL GRADE.
- ALL FILTER FABRIC SHALL BE STAPLED OR WIRED TO SUPPORT FENCING AND A MINIMUM OF 12 INCHES OF FABRIC SHALL BE EXTENDED INTO THE TRENCH. FILTER FABRIC SHALL NOT BE STAPLED OR FASTENED TO EXISTING TREES OF STRUCTURES UNLESS OTHERWISE APPROVED BY THE ENGINEER.
- 6. IF HIGH STRENGTH FILTER FABRIC AND CLOSER SPACING ARE USED, THE WIRE SUPPORT FENCING MAY BE ELIMINATED. HIGH STRENGTH FABRIC SHALL BE STAPLED OR WIRED DIRECTLY TO POSTS AS REQUIRED BY THE ENGINEER.
- CUTOFF TRENCH SHALL BE BACKFILLED WITH NATIVE SOIL OR 3/4 INCH MINIMUM DIAMETER WASHED GRAVEL OR OTHER SIMILAR SOURCE AS APPROVED BY THE ENGINEER.
- 8. FILTER FENCING SHALL BE INSTALLED WHERE SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER PRIOR TO COMMENCEMENT OF WORK. ALL FENCING SHALL BE INSPECTED DAILY DURING CONSTRUCTION AND AFTER EACH SIGNIFICANT RAINFALL EVENT UNTIL SITE HAS BEEN PERMANENTLY STABILIZED. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
- REMOVAL OF TRAPPED SEDIMENT SHALL BE PERFORMED WHEN AMOUNTS REACH
  APPROXIMATELY 1/3 HEIGHT OF THE FENCE. MATERIAL REMOVED FROM FENCE SHALL BE
  DISPOSED OF AT AN APPROVED OFFSITE LOCATION UNLESS OTHERWISE DIRECTED BY THE
  ENGINEER
- 10. FILTER FENCING SHALL REMAIN IN-PLACE UNTIL SITE HAS BEEN REVEGETATED TO ORIGINAL CONDITION OR DIRECTED BY THE ENGINEER. CONTRACTOR SHALL BE RESPONSIBLE FOR FENCING REMOVAL FROM THE SITE WITHIN 30 DAYS OF SITE STABILIZATION.





### STRAW BALES

- BALES SHALL BE PLACED IN A SINGLE ROW, LENGTHWISE ON THE CONTOUR, WITH ENDS OF ADJACENT BALES TIGHTLY ABUTTING ONE ANOTHER.
- 2. THE BARRIER SHALL BE ENTRENCHED AND BACKFILLED. A TRENCH SHALL BE A MINIMUM OF 4 INCHES. BACKFILL SOIL SHALL CONFORM TO THE GROUND LEVEL ON THE DOWNHILL SIDE AND SHALL BE BUILT UP 4 INCHES AGAINST THE UPHILL SIDE OF THE BARRIER. EACH BALE SHALL BE SECURELY ANCHORED BY AT LEAST 2 STAKES OR REBAR DRIVEN THROUGH THE BALE.
- THE GAP BETWEEN THE BALES SHALL BE CHINKED (FILLED BY WEDGING) WITH STRAW TO PREVENT WATER FROM ESCAPING BETWEEN THE BALES

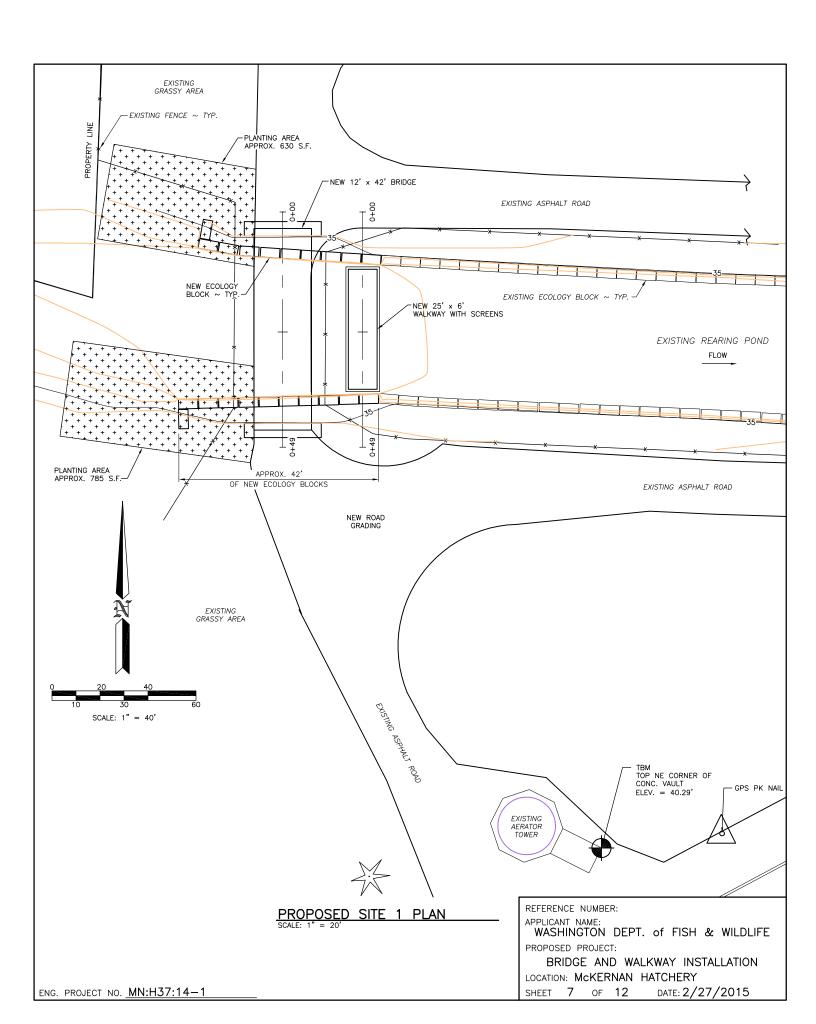
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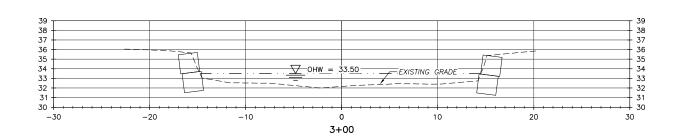
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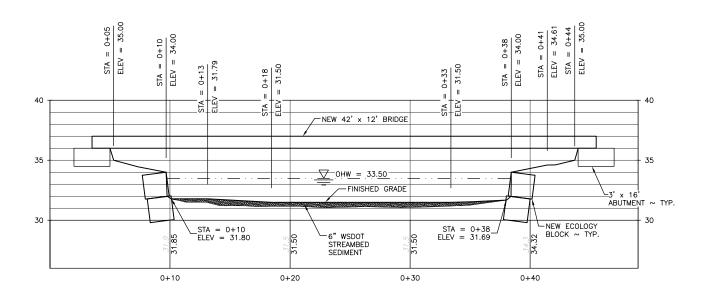
BRIDGE AND WALKWAY INSTALLATION LOCATION: McKERNAN HATCHERY

SHEET 6 OF 12 DATE: 2/27/2015





# EXISTING CREEK SECTION SCALE: 1" = 10'



BRIDGE PROFILE
SCALE: 1" = 8'

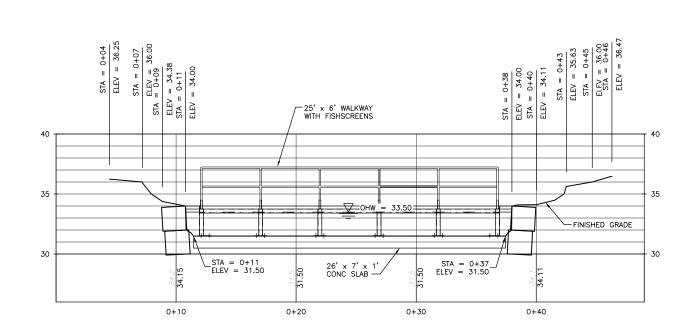
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OF 12 DATE: 2/27/2015

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WALKWAY PROFILE
SCALE: 1" = 8'

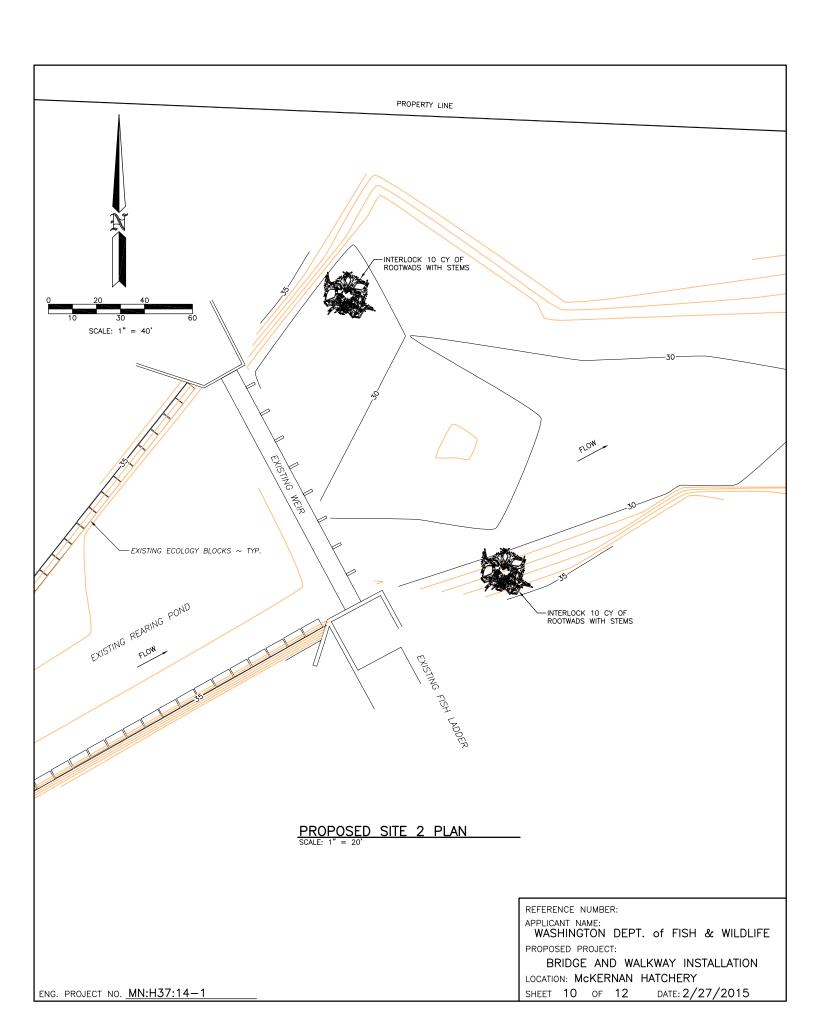
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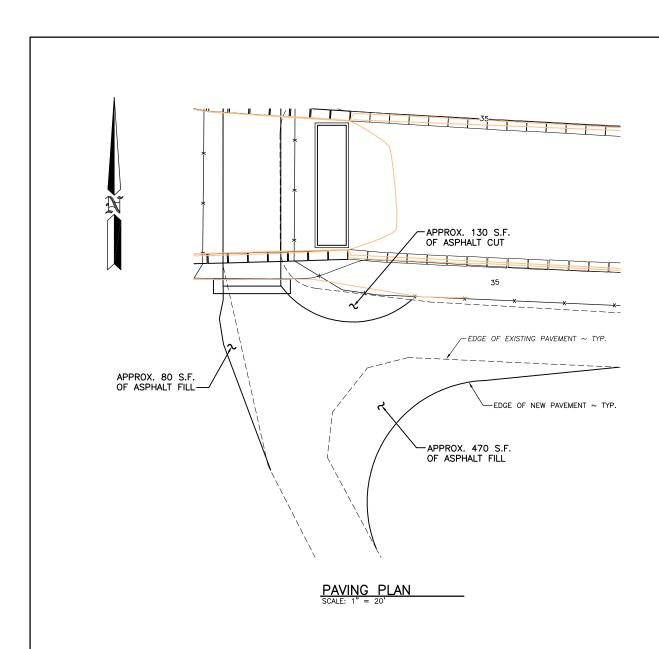
APPLICANT NAME: WASHINGTON DEPT. of FISH & WILDLIFE

PROPOSED PROJECT:

BRIDGE AND WALKWAY INSTALLATION LOCATION: McKERNAN HATCHERY

or 12 DATE: 2/27/2015



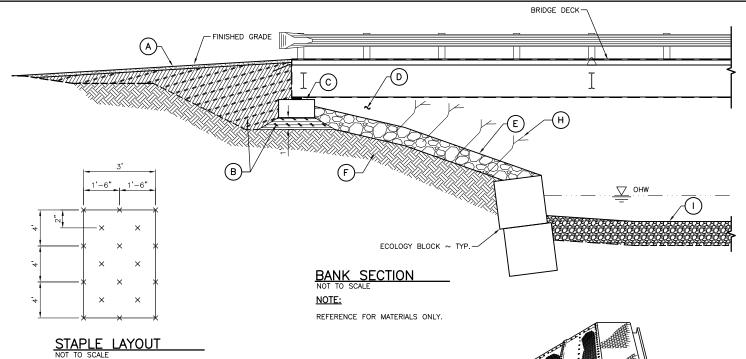


REFERENCE NUMBER:

APPLICANT NAME: WASHINGTON DEPT. of FISH & WILDLIFE PROPOSED PROJECT:

BRIDGE AND WALKWAY INSTALLATION LOCATION: McKERNAN HATCHERY

SHEET 11 OF 12 DATE: 2/27/2015

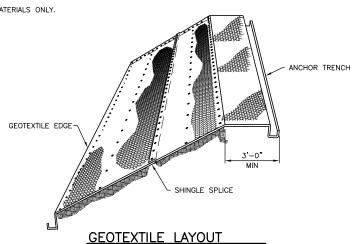


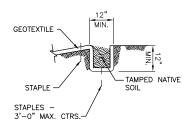
# TYPICAL BANK SECTION NOTES:

- A. CRUSHED SURFACING BASE COURSE COMPACTED 90 PERCENT, WSDOT 9-03.9(3), IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATION FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION 2012.
- B. BALLAST ROCK COMPACTED IN 12 INCH LIFTS, WSDOT 9-03.9(1), IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATION FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION 2012. (12 INCH LIFTS)
- C. PRE-CAST CONCRETE ABUTMENTS
- D. MAINTAIN 9 INCHES CLEARANCE BETWEEN QUARRY SPALLS AND BRIDGE STRINGERS.
- E. 6" COBBLES WSDOT 9-03.11(2). IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATION FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION 2012.
- F. EXISTING GROUND.
- G. WILLOW CUTTINGS.
- H. ENGINEERED STREAMBED MIX WSDOT 9-03.11(2) AND STREAMBED SEDIMENT WSDOT 9-03.11(1). PERCENTAGE BY VOLUME.

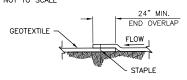
# **GEOTEXTILE NOTES:**

- ANCHOR TRENCHES ARE TO BE INSTALL AT LEAST 3 FEET BEYOND THE CREST OF THE SLOPE IN A SLOPE CONDITION.
- 2. OVERLAPS (EDGE TO EDGE) BETWEEN ROLLS SHOULD BE 3 TO 4 INCHES. THE (END TO END) SLICE BETWEEN ROLLS SHOULD BE 2 TO 3 FEET AND SHINGLED IN THE DIRECTION OF THE WATER FLOW. ALWAYS SECURELY FASTEN TO THE GROUND THE EDGES AND OVERLAPS WITH INTERVALS OF 3 FEET.
- SECURELY FASTEN DOWN THE CENTER OF EACH ROLL STAGGERING CENTERLINE STAPLES BETWEEN THE OUTSIDE STAPLES WITH A SPACING INTERVAL OF 3 FEET.
- 4. 3 4 STAPLES PER SQUARE YARD.
- 5. ALWAYS INSTALL TO ROWS OF STAPLES SPACED 1.5  $\times$  1.5 FEET APART AT THE ROLL SPLICE LOCATIONS.
- 6. INSTALL ADDITIONAL STAPLES AS REQUIRED TO ENSURE CONTINUOUS CONTACT WITH THE SOIL.
- 7. 8 INCH MINIMUM U-SHAPED STAPLES SHOULD BE INSTALLED FLUSH WITH THE SOIL SURFACE.
- 8. LEADING EDGES OF FABRIC SHALL BE BURIED A MINIMUM OF 12 INCHES AT A MINIMUM 45 DEGREE DOWN ANGLE.





# TYPICAL ANCHOR TRENCH DETAIL NOT TO SCALE



# TYPICAL SHINGLE SPLICE DETAIL NOT TO SCALE

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SHEET 12 OF 12 DATE: 2/27/2015